



## ***EPA to begin Investigation at Ely Mine Site***

***U.S. Environmental Protection Agency (EPA)  
Ely Mine Superfund Site, Vershire, Vermont***

***Community Update # 1 May 2002***

### **Introduction:**

The Ely Mine Site was placed on the National Priorities List (NPL) on September 13, 2002. Since that time EPA has been compiling the existing information relating to the Site. This fact sheet summarizes some of the preliminary activities that have been implemented and provides an overview of the Superfund activities planned for the Ely Mine Site.

### **Background:**

The Ely Mine is one several copper mines that operated in the Vermont copper belt. Other mines with the area include the Elizabeth Mine is South Strafford and the Pike Hill mines in Corinth. See Figure 1 for the location of the VT Copper Mines.

The Ely Mine is located in Vershire, Vermont. Ely Brook collects the run-off from the Ely Mine and discharges to Schoolhouse Brook. Schoolhouse Brook flows into West Fairlee where it enters the Ompompanoosuc River about 1.5 miles from Ely Mine.

The Ely Mine orebody was discovered in 1813. The Ely Mine was a major source of copper during the 19<sup>th</sup> century and was among the top ten U.S. producers of copper between 1866 and 1881. It reached the status of the third most productive copper mine in the

#### **Public Information Meeting**

EPA and VTANR will be available to discuss the upcoming plans for the Ely Mine  
at **7:00 p.m.**  
on **May 22<sup>nd</sup> 2002**  
at

Vershire Town Center  
Vershire Center Road  
Vershire, VT

EPA and VTANR officials will be available to answer your questions regarding the Site

U.S. in 1873 and 1875. The mine was most active between the mid-1850s and about 1905. Additional activity occurred at the Site during World War II when approximately 60,000 tons of waste rock were shipped to the Elizabeth Mine during 1949-1950 as part of the copper production at the Elizabeth Mine.

### **Superfund Cleanup Process:**

The Superfund cleanup process begins with site discovery or notification to EPA of possible releases of hazardous substances. Sites are discovered by various parties, including citizens, State agencies, and EPA Regional offices. Once discovered, sites are entered into the Comprehensive

Environmental Response, Compensation, and Liability Information System (CERCLIS), which is EPA's computerized inventory of potential hazardous substance release sites. EPA then evaluates the potential for a release of hazardous substances from the site and completes the following activities to determine if a Site should be placed on the National Priorities List (NPL):

- Preliminary Assessment/Site Inspection (PA/SI): initial investigations of site conditions to assess the potential threat to human health and the environment and to supply data for the Hazard Ranking System (HRS) Scoring
- HRS Scoring: screening mechanism used to place sites on the National Priorities List (NPL)
- NPL: list of sites identified through the PA/SI and HRS process that require further investigation and possible long-term cleanup

Once a Site is placed on the NPL, EPA will then perform the following activities:

- Remedial Investigation/Feasibility Study (RI/FS): series of investigations and studies to determine the nature and extent of contamination and assess the potential threats to human health and the environment
- Removal Assessment: EPA will periodically evaluate sites on the NPL to determine if an early

cleanup action (prior to the completion of the RI/FS) should be implemented to address a particular problem at a Site.

Removals can be designated as emergency, time critical, or non-time-critical actions

- Record of Decision (ROD): Upon completion of the RI/FS, EPA will issue a cleanup for public comment and then sign a decision document (ROD) that explains the cleanup activities for the Site
- Remedial Design/Remedial Action (RD/RA): After the ROD, EPA hires a contractor for the preparation and implementation of plans and specifications for implementation of a cleanup specified in a ROD
- Construction Completion: identifies completion of cleanup activities and the start of operation and maintenance
- Operation and Maintenance (O&M): conducted after site actions are complete to ensure that all actions are effective and operating properly
- NPL Site Deletions: once the cleanup is complete EPA may remove a site from the NPL

For the Ely Mine Site, steps 1-3 have been accomplished. EPA is now prepared to implement the remedial investigation and feasibility study (RI/FS).

## What we already know about the Site?

Based on the water quality data as well as the fish and benthic invertebrate population studies implemented to date, it is clear that the Ely Mine is having a major impact on the aquatic life in Ely Brook and portions of Schoolhouse Brook. The following is a summary of the information has been assembled by EPA:

- A study of the benthic invertebrate and fish populations in Schoolhouse Brook revealed excellent biological condition above the mine and poor biological condition below the mine extending to the Ompompanoosuc River.
- The Ompompanoosuc River was found to be of good biological condition below the confluence with Schoolhouse Brook.
- Water quality data collected by the USGS in 1998 -2000 as well as EPA data collected in 2000 revealed that the run-off from the waste rock and mine drainage at the Ely Mine contain elevated levels of aluminum, cobalt, copper, iron, manganese, and zinc
- Analysis of the waste rock at the Ely Mine by the USGS indicates that the material has high acid generating and metal leaching potential

## What is planned?

EPA, along with the U.S. Army Corps of Engineers and the USGS plan to collect additional data this

spring to better understand the contamination at the Site. EPA is will also perform historical research and mapping to confirm that the Ely Mine, like the Elizabeth Mine, is eligible for the National Register of Historic Places. A work plan for the comprehensive investigation will be developed by EPA. The plan will focus on the following questions:

- How extensive is the contamination at the Site?
- What are the impacts to the aquatic organisms?
- What are the impacts to humans?
- Has groundwater been contaminated?
- What technologies could be used to cleanup the Site?
- What is the extent of historic resources?
- How might these resources be protected during a cleanup?

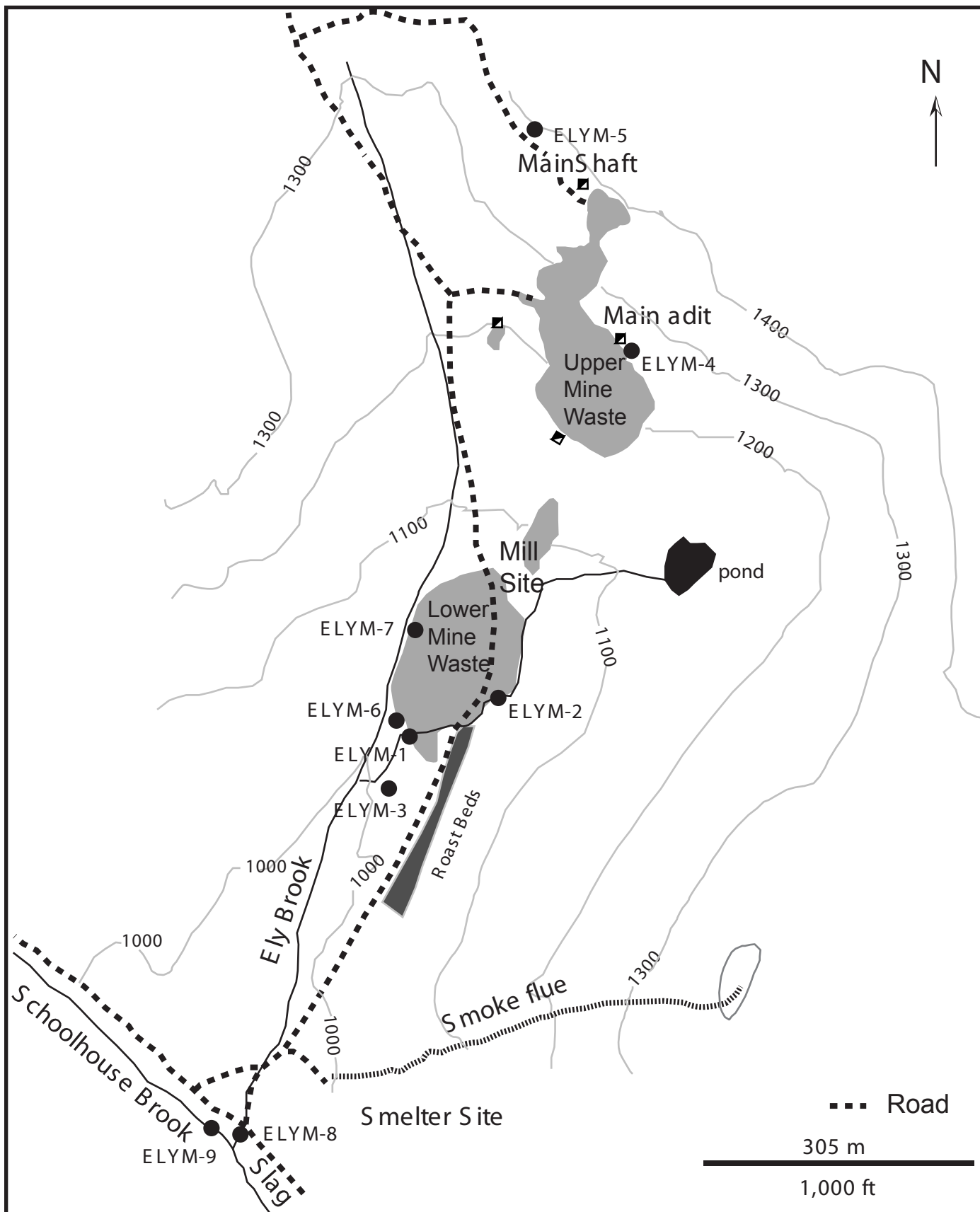
## Community Involvement:

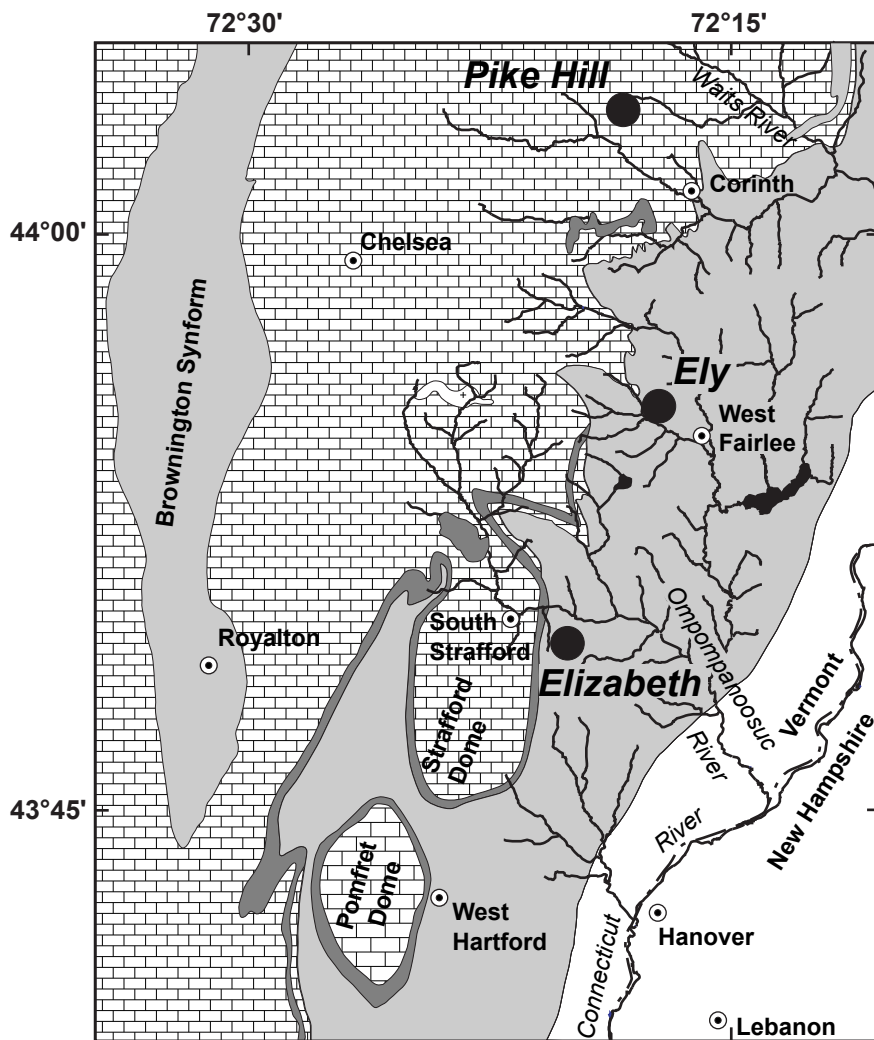
EPA plans to meet regularly with the community to discuss the plans as well as the results relating to the Ely Mine. If you have any questions regarding the Ely Mine Site feel free to contact:

Edward Hathaway: EPA Project Manager at (617) 918-1372 or [hathaway.ed@epa.gov](mailto:hathaway.ed@epa.gov)  
toll free: 1-888-372-7341 ext. 81372






William Lovely: EPA Project Manager at (617) 918-1240 or [lovely.william@epa.gov](mailto:lovely.william@epa.gov)  
toll free: 1-888-372-7341 ext. 81240

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### EXPLANATION

-  Brocklebank granite
-  Gile Mountain Formation
-  Standing Pond Volcanics
-  Waits River Formation
-  Ammonoosuc Volcanics and related rocks

